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Attorney's Docket No.: 17106-024001 / 24745-1613

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Edwin L. Madison, et al.  
Serial No. : 10/099,700  
Filed : March 13, 2002  
Cust. No. : 20985

Art Unit : 1652  
Examiner : William W. Moore  
Conf. No. : 4309

Title : NUCLEIC ACID MOLECULES ENCODING A TRANSMEMBRANE SERINE  
PROTEASE 7, THE ENCODED POLYPEPTIDES AND METHODS BASED  
THEREON

MAIL STOP AMENDMENT  
Commissioner for Patents  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Dear Sir:

Transmitted herewith are a Transmittal Letter (1 page – in duplicate); Supplemental Information Disclosure Statement (2 pages), Form PTO-1449 (1 page), bound references (2 volumes in one box), and a return postcard.

☒ The Commissioner is hereby authorized to charge any fee, including any submitted herewith if the attached check(s) is in the wrong amount or otherwise improper or missing, that may be due in connection with this and the attached papers, or with this application during its entire pendency to or to credit any overpayment to Deposit Account No. 06-1050. A duplicate of this sheet is enclosed.

Respectfully submitted,

By:

Stephanie L. Seidman  
Registration No. 33,779

Attorney's Docket No.: 17106-024001 / 24745-1613

**Address all correspondence to:**

Stephanie L. Seidman  
Fish & Richardson P.C.  
12390 El Camino Real  
San Diego, California 92130  
Telephone: (858) 678-4777  
Facsimile: (202) 626-7796  
E-mail: seidman@fr.com

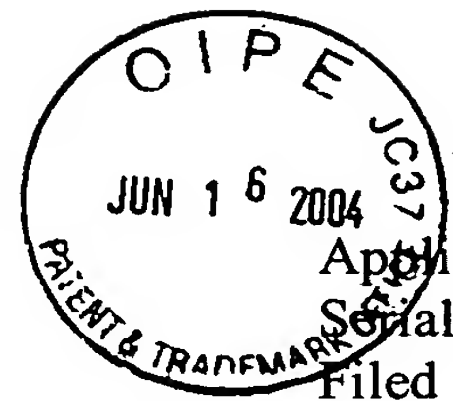
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**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

"Express Mail" Mailing Label Number: EV 471528746 US  
Date of Deposit: June 16, 2004

I hereby certify that this paper is being deposited with the United States Postal "Express Mail Post Office to Addressee" Service under 37 CFR §1.10 on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

Stephanie L. Seidman



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SERINE PROTEASE 7, THE ENCODED POLYPEPTIDES AND METHODS  
BASED THEREON

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Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

This Supplemental Information Disclosure Statement is filed pursuant to 37 C.F.R. §1.97(c). Because this Supplemental Information Disclosure Statement is filed after receipt of a First Office Action on the merits for the above-captioned application, the filing fee of \$180 is enclosed. If no proper payment is enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1050.

In accordance with the duty of disclosure imposed by 37 C.F.R. §1.56 to inform the Patent Office of all references known by Applicant or Applicant's representative that may be material to the examination of the subject application, Applicant's representative hereby provides this Supplemental Information Disclosure Statement that is prepared in accordance with 37 C.F.R. §§1.97-1.98. Form PTO-1449 (1 page) and references are provided herewith.

The cited documents, listed on the Forms PTO-1449 and provided herewith, are in the English language. Hence, in accordance with the requirements of 37 C.F.R. §1.98, as amended effective March 16, 1992, no further explanation of the listed items is necessary.

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Stephanie E. Seidman

Applicant : Edwin L. Madison, et al.  
Serial No. : 10/099,700  
Filed : March 13, 2002  
Suppl. Information Disclosure Statement  
Page : 2 of 2

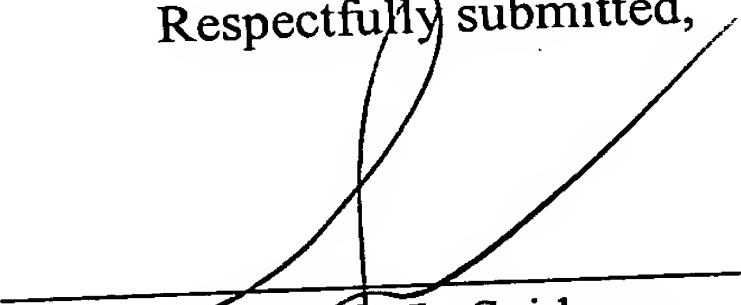
Attorney's Docket No.: 17106-024001 / 24745-1613

Although these documents are made known to the Patent and Trademark Office in compliance with Applicant's duty of disclosure, such disclosure is not to be construed as an admission by Applicant or Applicant's representative that any of the references, singly or in any combination thereof, is effective as prior art against the subject application. In accordance with 37 C.F.R. §1.97(h), the filing of this Supplemental Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. §1.56(b) exists.

Applicant respectfully requests that the Examiner review the foregoing references and information and that they be made of record in the file history of the above-captioned application.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. A check for \$180 in payment of the late submission fee of §1.17(p) is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,



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Stephanie L. Seidman  
Reg. No. 33,779

Attorney's Docket No.: 17106-024001 / 24745-1613

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Stephanie L. Seidman  
Fish & Richardson P.C.  
12390 El Camino Real  
San Diego, California 92130  
Telephone: (858) 678-4777  
Facsimile: (202) 626-7796  
E-mail: seidman@fr.com

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| Substitute Form PTO-1449<br>(Modified)<br><br><b>Information Disclosure Statement<br/>by Applicant</b><br>(Use several sheets if necessary)<br><br>(37 CFR §1.98(b)) | U.S. Department of Commerce<br>Patent and Trademark Office |  | Attorney's Docket No.<br>17106-024001<br>(24745-1613) | Application No.<br>10/099,700<br>Conf. No.<br>4309 |
|  | Applicant<br>Edwin L. Madison, et al.                      |  |   |  |
|  | Filing Date<br>March 13, 2002                              |  | Group Art Unit<br>1652<br>Customer No<br>20985        |  |

**U.S. Patent Documents**

| Examiner Initial | Desig. ID | Document Number | Publication Date | Patentee                | Class | Subclass | Filing Date If Appropriate |
|------------------|-----------|-----------------|------------------|-------------------------|-------|----------|----------------------------|
|                  | A         | 60/257,495      |                  | Zerhusen et al.         |       |          | 12/21/00                   |
|                  | B         | 2003-0175938    | 9/18/03          | Shi <i>et al.</i>       |       |          |                            |
|                  | C         | 2003-0232349    | 12/18/02         | Delegeane <i>et al.</i> |       |          |                            |

**Foreign Patent Documents or Published Foreign Patent Applications**

| Examiner Initial | Desig. ID | Document Number | Publication Date | Country or Patent Office | Class | Subclass | Translation |    |
|------------------|-----------|-----------------|------------------|--------------------------|-------|----------|-------------|----|
|                  |           |                 |                  |                          |       |          | Yes         | No |
|                  | D         | WO 03/104391    | 12/18/03         | PCT                      |       |          |             |    |
|                  | E         | WO 04/005471    | 1/15/04          | PCT                      |       |          |             |    |

**Other Documents (include Author, Title, Date, and Place of Publication)**

| Examiner Initial | Desig. ID | Document  |
|------------------|-----------|---|
|                  | F         | Bork, P., "Powers and Pitfalls in Sequence Analysis: the 70% Hurdle," <i>Genome Research</i> 10: 398-400 (2000)   |
|                  | G         | Broun <i>et al.</i> , "Catalytic Plasticity of Fatty Acid Modification Enzymes Underlying Chemical Diversity of Plant Lipids," <i>Science</i> 282:1315-1317 (1998)  |
|                  | H         | Bryan, Philip N., "Protein engineering of subtilisin," <i>Biochimica et Biophysica Acta</i> 1543:203-222 (2000)   |
|                  | I         | Lu <i>et al.</i> , "Crystal Structure of Enteropeptide Light Chain Complexed with an Analog of the Trypsinogen Activation Peptide," <i>J. Mol. Biol.</i> , 292:361-373 (1999)   |
|                  | J         | Ngo <i>et al.</i> "Computational Complexity, Protein Structure Prediction, and the Levinthan Paradox," Chapter 14 in <i>The Protein folding problem and tertiary structure prediction</i> Kenneth M. Merz, Jr. and Scott M. Le Grand (Eds.) Boston: Birkhäuser pp. 433-506 (1994) |
|                  | K         | Nienaber <i>et al.</i> , "Re-engineering of Human Urokinase Provides a System for Structure-based Drug Design at High Resolution and Reveals a Novel Structural Subsite," <i>The Journal of Biological Chemistry</i> , 275 (10):7239-7248 (2000)                                  |
|                  | L         | Sommerhoff, <i>et al.</i> , "The structure of the human $\beta$ II-tryptase tetramer: fo(u)r better or worse," <i>Proc Natl Acad Sci U.S.A.</i> , 96:10984-10991 (1999)   |
|                  | M         | Van de Loo <i>et al.</i> "An oleate 12-hydroxylase from <i>Ricinus communis</i> L. is a fatty acyl desaturase homolog," <i>Proc. Natl. Acad. Sci. USA</i> 92:6743-6747 (1995)   |
|                  | N         | Venekei <i>et al.</i> , "Attempts to convert chymotrypsin to trypsin," <i>FEBS Letters</i> 379, 143-147 (1996)  |
|                  | O         | Wikowski <i>et al.</i> , "Conversion of a $\beta$ -Ketoacyl Synthase to a Malonyl Decarboxylase by Replacement of the Active-Site Cysteine with Glutamine," <i>Biochemistry</i> 38:11643-11650 (1999)   |
|                  | P         | Xu <i>et al.</i> , "Mutational Analysis of the Primary Substrate Specificity Pocket of Complement Factor B," <i>THE JOURNAL OF BIOLOGICAL CHEMISTRY</i> , 275 (1):378-385 (2000)  |

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|--|-----------------|
| Examiner Signature   | Date Considered |
| EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. NUCLEIC ACID MOLECULES ENCODING A TRANSMEMBRANE SERINE PROTEASE 7, THE ENCODED POLYPEPTIDES AND METHODS BASED THEREON |                 |